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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,823	05/14/2002	Leslie Gary Graf	P12324-US1	5403

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ERICSSON INC.
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EXAMINER

BENGZON, GREG C

ART UNIT	PAPER NUMBER
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2144

MAIL DATE	DELIVERY MODE
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02/19/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/069,823

Applicant(s)

GRAF ET AL

Examiner

Greg Bengzon

Art Unit

2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 45-55, 58, 60, 62, 65-67, 69-71, 74-77, 79 and 81-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 45-55, 58, 60, 62, 65-67, 69-71, 74-77, 79, 81-90 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This application has been examined. Claims 45-55, 58, 60,62, 65-67, 69-71, 74-77,79, 81-90 are pending. Claims 1-44, 56, 57, 59, 61, 63-64, 68, 72-73, 78, 80 have been cancelled.

Making Final

Applicant's arguments filed 12/28/2007 have been fully considered but they are not persuasive.

The claim amendments regarding -- '*transmission rates along respective air interfaces established between each wireless terminal and an access node*' -- do not overcome the disclosure by the prior art as applied in the prior Office Action, as shown below.

The Examiner is maintaining the rejection(s) using the same grounds for rejection and thus making this action FINAL.

Priority

This application claims benefits of priority from PCT Application PCT/AU00/01070, filed September 8, 2000 and Foreign Application (AUSTRALIA) PQ2741, filed September 9, 1999.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 45-50, 54-55, 60, 62,65-67,69-74, 77,79,81-84, 87-90 rejected under 35 U.S.C. 103(a) as being unpatentable over Kinrot (US Patent 6574193) in view of Nishio et al. (US Patent 6192039), or alternatively, Nishio in view of Kinrot.

Kinrot disclosed (re. Claim 45,54,74, 77,79,81,87-90) the information rate control processor comprising: a first sub-processor adapted to determine a plurality of maximum information transmission rates along established communication paths (Kinrot – Column 3 Lines 1-5, Column 3 Lines 15-20, Column 4 Lines 10-15); a second sub-processor adapted to select a lowest one of the plurality of maximum information transmission rates, (Kinrot – Column 9 Lines 25-35 and a third sub-processor adapted to authorize or establish a communication rate no greater than the selected lowest rate.(Kinrot - Column 4 Lines 15-25)

Kinrot disclosed (re. Claim 45) *wherein the communication rate of the codec can be altered based on a type of traffic transmitted* (Kinrot-Column 2 Lines 1-15, 'variable rate encoding depending on signal type')

Kinrot disclosed (re. Claim 45) *wherein the resources relate to an operation of a codec of a terminal.* (Kinrot-Column 6 Lines 5-10, 'varying bit rate of each of the sources')

However Kinrot did not disclose (re. Claim 45) wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources. Kinrot did not disclose (re. Claim 45) wherein established communication paths comprise air interfaces between each wireless terminal and an access node.

Nishio disclosed a method for flow control (Nishio-Column 12 Lines 55-60) in a wireless communication network involving a core network and wireless endpoints. Nishio disclosed (re. Claim 45) wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources. (Nishio-Figure 2)

Nishio disclosed (re. Claim 45) wherein established communication paths comprise air interfaces between each wireless terminal and an access node. (Nishio-Figure 2)

Nishio also disclosed (re. Claim 45) wherein the resources relate to an operation of a codec of a mobile terminal. (Nishio-Figure 2, Column 8 Lines 60-65)

Nishio disclosed (re. Claim 45) controlling *transmission rates along respective air interfaces established between each wireless terminal and an access node'* (Nishio-Figure 2, Column 13 Lines 1-35)

Kinrot and Nishio are analogous art because they present concepts and practices regarding rate control across ATM networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nishio into Kinrot, such the the ATM network of Kinrot is enabled to include wireless endpoints. The motivation for said combination would have been in order to allow for Kinrot to apply the rate control across the entire ATM network, including wireless the endpoints, such that the ATM network is not affected by problems due to 'instantaneous break' (Nishio-Column 1 Lines 45-50).

Alternatively, it would have been obvious to combine Kinrot into Nishio, such that Nishio is able to apply the flow control method of Kinrot and prevent congestion across the wireless interfaces and adapt to stress levels for each VC. (Kinrot – Column 40-45)

Claims 54,74, 77,79,81,87-90 are rejected on the same basis as Claim 45.

Furthermore Kinrot disclosed (re. Claims 74,77,79,81,87) wherein the resources relate to an operation of a codec of each terminal. (Kinrot-Column 6 Lines 5-10, '*varying bit rate of each of the sources*')

However Kinrot did not disclose (re. Claims 74,77,79,81,87) wherein the resources relate to an operation of a codec of each mobile terminal .

Nishio disclosed (re. Claims 74,77,79,81,87) wherein the resources relate to an operation of a codec of each mobile terminal; (Nishio-Figure 2, Column 8 Lines 60-65)

Kinrot and Nishio are analogous art because they present concepts and practices regarding rate control across ATM networks. At the time of the invention it would have been obvious to a person of ordinary skill in the art to combine Nishio into

Kinrot, such that each source terminal of Kinrot is enabled to include wireless endpoints. The motivation for said combination would have been in order to allow for Kinrot to apply the rate control across the entire ATM network, including wireless the endpoints, such that the ATM network is not affected by problems due to 'instantaneous break' (Nishio-Column 1 Lines 45-50).

Alternatively, it would have been obvious to combine Kinrot into Nishio, such that Nishio is able to apply the flow control method of Kinrot and prevent congestion across the wireless interfaces and adapt to stress levels for each VC. (Kinrot – Column 40-45)

Kinrot-Nishio disclosed (re. Claim 46,82) wherein the communication rate is dynamically authorised and/or established during a communication session (Kinrot – Column 2 Lines 1-5) based on the type of information being communicated by a wireless mobile terminal to the access node. (Kinrot-Column 3 Lines 45-50, 'ambiguity-resolving field', Column 4 Lines 60-65)

Kinrot-Nishio disclosed (re. Claim 47 ,83) wherein the communication rate is authorised and/or established at the set up of a communication session (Kinrot – Column 2 Lines 5-10) between a wireless mobile terminal and the wireless telecommunication network.

Kinrot-Nishio disclosed (re. Claim 48,84) wherein the communication rate is authorised and/or established prior to set up of a communication session (Kinrot – Column 2 Lines 5-10) between a wireless mobile terminal and the wireless telecommunication network.

Kinrot-Nishio disclosed (re. Claim 49) wherein the information rate control processor means is located in the access nodes. (Kinrot – Column 7 Lines 1-5)

Kinrot-Nishio disclosed (re. Claim 54, 77, 79) a core network; a plurality of access nodes each in communication with the core network wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources. (Nishio-Column 12 Lines 55-60)

Kinrot-Nishio disclosed (re. Claim 54, 60) a plurality of endpoints (Kinrot – Column 2 Lines 60-65); and an information rate control processor adapted to control a communication rate for transmission of information in the communication system among endpoints.(Kinrot - Column 4 Lines 15-25)

Kinrot-Nishio disclosed (re. Claim 50) wherein the information rate control function means is located in the core network. (Kinrot – Column 7 Lines 1-5)

Kinrot-Nishio disclosed (re. Claim 55) wherein the core network comprises an asynchronous transfer mode (ATM) network ; (re. Claim 56) wherein the ATM network includes an AAL2 adaptation layer. (Kinrot – Column 2 Lines 60-65)

Kinrot-Nishio disclosed (re. Claims 62,65-67,69-73) various well-known embodiments of an ATM networks (i.e. having a maximum transmission rate, air interface, radio networks, cellular networks, fixed access networks, mobile switching center, PSTN, ISDN). (Nishio- Column 2 Lines 55-65)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 51,57, 75 ,85 rejected under 35 U.S.C. 103(a) as being unpatentable over Kinrot (US Patent 6574193) in view of Nishio et al. (US Patent 6192039), further in

view of ITU-T Recommendation I.366.1 (Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL Type 2) ,hereinafter referred to as ITU-T.

Kinrot-Nishio did not disclose (re. Claim 51, 57, 75,85) implementing the information rate control function over a Service Specific Convergence Sublayer (SSCS) using I.366.2 cells in an ATM network. While Kinrot-Nishio was concerned with congestion control in ATM networks, Kinrot would have been motivated to look for other disclosures concerning ATM networks, such as ITU-T.

ITU-T disclosed (re. Claim 51,57, 75,85) a flow control mechanism that allows an SSADT receiver to control the rate at which the peer SSADT transmitter entity may send information. (ITU-T – Section 9.1) ITU-T disclosed using said SSADT over AAL Type 2 connections as used over various embodiments of an ATM network. (ITU-T – Section 9.1, Section 9.2)

Kinrot-Nishio and ITU-T are analogous art because they present concepts and practices regarding the implementation of flow control mechanisms over an ATM network. At the time of the invention it would have been obvious to combine the teachings of ITU-T regarding using the SSADT sublayer to implement a flow control mechanism in ATM networks. The motivation for doing so would have been, as ITU-T suggests (ITU-T – Section 1), in order to implement assured data transfer features between nodes in an ATM network.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 52,53,58,59, 76, 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinrot (US Patent 6574193) in view of Nishio et al. (US Patent 6192039), further in view of Brueckheimer et al. (US Patent 6574224) hereinafter referred to as Brueckheimer.

Kinrot-Nishio did not disclose (re. Claims 52,53,59, 76,86) a rate control mechanism in an RTP Transport layer in an ATM network; (re. Claim 58, 76) wherein the core network is an IP network.

Brueckheimer disclosed (re. 52,53,59, 76,86) an ATM switch based resource module performing signal processing functions and interworking processed traffic between RTP and AAL1, 2, 5 (Brueckheimer – Figure 7, Column 7 Lines 1-10, Column

8 Lines 10-20). Brueckheimer disclosed (re. Claim 58, 76) wherein the core network is an IP network. (Brueckheimer – Column 8 Lines 10-20)

Kinrot, Nishio, and Brueckheimer are analogous art because they present concepts and practices regarding the implementation of control mechanisms over an ATM network. At the time of the invention it would have been obvious to combine the teachings of Brueckheimer to use RTP Transport Layer mechanisms in ATM networks. The motivation for doing so would have been, as Brueckheimer suggests (Brueckheimer – Column 2 Lines 60-65), in order to meet demands of the IP and ATM adaptation layers and the likelihood that both IP and ATM technologies will be deployed in the near term for both real-time and non-real-time services.

Response to Arguments

Applicant's arguments filed 12/28/2007 have been fully considered but they are not persuasive.

The Applicant presents the following argument(s) [in italics]:

... Kinrot fails to disclose monitoring the availability of air interface resources,

which are typically used by mobile (or wireless) terminals to access a network. For this reason, of course, Kinrot also fails to disclose comparing two (or more) air interface maximum information transmission rates, and also therefore fails to disclose setting a maximum communication rate based on this comparison.

The Examiner respectfully disagrees with the Applicant.

Kinrot is not relied upon to disclose *monitoring the availability of air interface resources.*

Nishio Column 8 Lines 60-65 disclosed a mobile device communicating via an ATM transmission path which inherently includes an air interface where the transmission path is monitored by the flow control module (Column 13 Lines 20-25). Thus Nishio disclosed *monitoring the availability of air interface resources* in order to prevent congestion (Nishio-Column 14 Lines 25-30).

Kinrot disclosed selecting the lower value between a plurality of transmission rates in an ATM network. (Kinrot – Column 4 Lines 30-35, Column 9 Lines 25-35) Kinrot also disclosed *determining whichever of the paths is the most congested* (Kinrot - Column 3 Lines 1-5).

The Examiner notes that where Kinrot disclosed a selection of the lower value between a plurality of transmission rates, then Kinrot disclosed *comparing two (or more) air interface maximum information transmission rates.*

Thus the combination of Kinrot and Nishio disclosed '*control of air interface resources and monitoring of the availability of the resources based on the condition of at least two air interfaces*'.

While Nishio describes flow control during handoff, it is in the context of a mobile terminal traveling at high speed from one radio zone to another (Nishio-Column 1 Lines 20-30). It would be obvious to one of ordinary skill in the art that Nishio's intent is to maintain flow control over multiple handoffs, and thus essentially for the duration of the entire transmission. At any rate, Kinrot disclosed flow control regardless of whether a handoff is occurring or not. (Kinrot-Column 3 Lines 30-45)

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure

relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Bengzon whose telephone number is (571) 272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

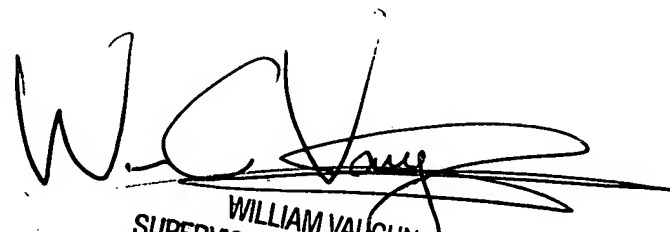
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Greg Bengzon
Patent Examiner, AU 2144


WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
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